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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/949,525	10/14/1997	MICHAEL J. WIENER	ENT970827-1	8206

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EXAMINER

MEISLAHN, DOUGLAS J

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 04/21/2004

46

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary

Application No.

08/949,525

Applicant(s)

WIENER ET AL.

Examiner

Douglas J. Meislahn

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-17, 19-23 and 25-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-17, 19-23 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed 02 February 2004 that amended claims 1, 14, 21, and 30 while deleting claims 4, 18, and 24.

Response to Arguments

2. Applicant's arguments filed 02 February 2004 have been fully considered but they are not persuasive. With respect to what was formerly claim 4 and is now incorporated into the first claim, Ellison's discussion on page 3 of a key, the existence of which need not be known to a CA, meets the limitation of sending keys from an user to a CA. The examiner first presented this argument on page 3 of paper 17, sent 01 December 2000. This is also applicable to what were formerly claims 14 and 28.

3. Applicant argues that the cited references do not show selectable private key validity periods. The validity period selected in Ellison reads on selecting a validity period for both a private key and public key. This would not be the case if the two periods were different. This limitation would not necessarily render the claims allowable, but it would, at the very least, require the addition of a reference. Lewis' system uses a multi-client manager.

4. Applicant contends that Ellison teaches away from various aspects of the claims. However, the teaching on which the rejection relies is applicable to systems beyond that which Ellison discusses. The utility of this feature is obvious to a person of ordinary skill in the art, as suggested by Ellison referring to it as a matter of normal risk management.

5. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

6. Applicant's comments with respect to Lewis as not teaching elements formerly in claim 4 are not applicable to claim 9, which has not been amended in a manner similar to the first claim. These same comments are unpersuasive because Ellison renders the features obvious.

7. Applicant's analysis of Lee et al. is flawed. Sending the issuer's key pair to the certification authority constitutes an update request. Based on this, it is clear that the rejection meets the limitations of the instant claims.

8. In response to applicant's argument that Lee et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Lee et al. clearly is concerned with key certification.

9. With respect to claim 5, the rejections show a key update request that originates at a client. As stated in the rejections, applicant's admitted prior art and other, general knowledge would motivate a person to use certain time frames during which a client could request a key.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-3, 6, 8-17, 20-23, 26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (5761306) in view of Ellison (Generalized Certificates).

Lewis shows a public key replacement system. Figure 2 shows that both private and public keys are updated. Lewis' system causes a key switch. Lewis does not say that there are certificates with expiry data that is user selectable. Ellison talks throughout his disclosure about certificates, which are used to authenticate public keys. Certification authorities issue these certificates. On page five, Ellison says that he believes that there is a problem with CRLs. He believes, as he says in the paragraph bridging pages five and six, certificates should each include a validity field. He goes on to say that "[i]t is up to you to decide how long you're willing to have an invalid certificate out in the world – and to define the validity period accordingly. This is a matter of normal risk management." An e-mail message that begins on page seven and ends on page 9 of Ellison's article outlines the benefits of eliminating CRLs. Therefore it would

have been obvious to a person of ordinary skill in the art at the time the invention was made to give users the ability to define the validity period for certificates, as taught by Ellison, in the public key distribution system of Lewis.

Lewis anticipates additional material in claim 9. Ellison shows claim 2. Claim 3 is met by Lewis in lines 64-65 of column 7. Claim 6 is inherent to Ellison in that an interface to select validity periods is required.

12. Claims 5, 19, 25, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis and Ellison as applied to claims 1, 14, and 21 above, and further in view of applicant's admitted prior art.

Lewis and Ellison teach the selection of key validity periods on a per client basis. They do not specify a time frame in which a client can request key updates. In lines 14 through 19 of page 2, applicant discusses a conventional public key system in which keys have a fixed default period that is "... generally a fixed percentage or a total key lifetime ...". Official notice is taken that fixed length renewal periods are old and well known. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to set key update periods that are based on a fixed number of days and a percentage of a key's lifetime. This method provides flexibility by giving clients who have keys that have either extremely long or extremely short lifetimes two options as to when to update their keys.

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis and Ellison as applied to claim 1 above.

Lewis and Ellison teach the selection of key validity periods on a per client basis. In their system, keys are created by a user and then sent to a certification authority for a certificate. In another implementation of public-key cryptosystems, the certification authority both generates and verifies the public/private key pair, sometimes on request. The previously mentioned RSA key marketing method exemplifies this. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teachings of Lewis and particularly Ellison to the well-known public key cryptosystem where a certification authority produces the key pair.

14. Claims 1-3, 6, 8-17, 20-23, 26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (6003014) in view of Ellison.

Looking at claim 30, in lines 49-65 of column 10, Lee et al. teach sending an issuer's public/private key pair (IPK/ISK) to a certificate authority (CA). The CA generates a certificate (ICERT) using its private key (CASK). The issuer reads on applicant's client, and the transmission of IPK and ISK reads on applicant's digital signature key pair. The CA would not generate ICERT if it had not determined that it was requested to do so, with the reception of the key pair reading on the request and the reception. As described in lines 13-18 of column 11, ICERT includes information identifying the issuer and expiry information. As implied in the following paragraph, ICERT contains the CA's signature and the issuer's public key. As such the last clause of claim 30 is met. Lee et al. do not say that the expiry data is selectable. In the paragraph spanning pages 5 and 6, Ellison teaches setting public key validity periods according to risk management. Therefore it would have been obvious to a person of

ordinary skill in the art at the time the invention was made for Lee et al.'s validity periods to be selectable, as taught by Ellison, in order to allow for risk management. As the CA produces the certificates in Lee et al., it would be obvious for the CA to provide, and necessary for it to store, the expiry information. The existence of expiry information renders obvious new and old key pairs and the necessary transfer between the two.

Claims 1, 9, 14, and 21 contain subject matter similar to, but broader than, that covered by claim 30 and are rejected for largely the same reasons. The rationale behind the rejections of the dependent claims are apparent from either their similarity to claim 30 or features of the prior art discussed in preceding paragraphs.

15. Claims 5, 19, 25, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. and Ellison as applied to claims 1, 14, and 21 above, and further in view of applicant's admitted prior art.

Lee et al. and Ellison teach the selection of key validity periods on a per client basis. They do not specify a time frame in which a client can request key updates. In lines 14 through 19 of page 2, applicant discusses a conventional public key system in which keys have a fixed default period that is "... generally a fixed percentage or a total key lifetime ...". Official notice is taken that fixed length renewal periods are old and well known. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to set key update periods that are based on a fixed number of days and a percentage of a key's lifetime. This method provides flexibility by giving clients who have keys that have either extremely long or extremely short lifetimes two options as to when to update their keys.

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. and Ellison as applied to claim 1 above.

Lee et al. and Ellison teach the selection of key validity periods on a per client basis. In their system, keys are created by a user and then sent to a certification authority for a certificate. In another implementation of public-key cryptosystems, the certification authority both generates and verifies the public/private key pair, sometimes on request. The previously mentioned RSA key marketing method exemplifies this. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teachings of Lee et al. and particularly Ellison to the well-known public key cryptosystem where a certification authority produces the key pair.

Conclusion

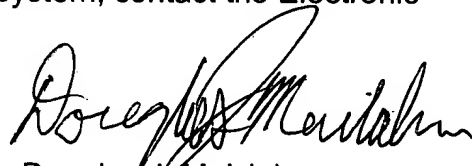
17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Meislahn whose telephone number is (703) 305-1338. The examiner can normally be reached on between 9 AM and 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Douglas J. Meislahn
Examiner
Art Unit 2137

DJM